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| Application Number | 10/772,502 |
| Filing Date | 02/05/2004 |
| First Named Inventor | David B. Rozema |
| Art Unit | |
| Examiner Name | |
| Attorney Docket Number | Mirus.042.03 |

Total Number of Pages in This Submission

ENCLOSURES (Check all that apply)

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| Firm or Individual name | Mark K. Johnson |
| Signature | |
| Date | 11/04/2004 |

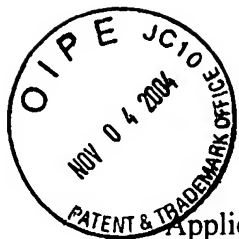
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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: **David B. Rozema,**)
Darren Wakefield)
Serial No.: **10/772,502**)
Filed: **02/05/2004**)
Group Art Unit:)

For: **Polyvinylethers for delivery of polynucleotides to mammalian cells**

INFORMATIONAL STATEMENT

Commissioner of Patents
P.O. BOX 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. 1.56, applicant hereby calls to the attention of the Patent and Trademark Office the publications listed on the attached PTO 1449. This information statement supplements the previously filed information statement.

UNITED STATES PATENTS

| <u>Patent No.</u> | <u>Inventor</u> | <u>Issue Date</u> |
|-------------------|----------------------|-------------------|
| 6,383,811 | Wolff, Jon A. et al. | May 7, 2002 |

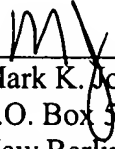
REFERENCES CITED

Akhtar S et al. "The delivery of antisense therapeutics." Adv Drug Deliv Rev; 2000 Vol. 44 no. 1 pp. 3-21.
Budker V et al. "Naked DNA delivered intraportally expresses efficiently in hepatocytes." Gene Therapy; 1996 Vol. 3 No. 7 pp. 593-598.
Carrasco L "Entry of animal viruses and macromolecules into cells." FEBS Lett; 1994 Vol. 350 no. 2-3 pp. 151-4.
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- Ghosh C et al. "Intracellular delivery strategies for antisense phosphorodiamidate morpholino oligomers." *Antisense Nucleic Acid Drug Dev*; 2000 Vol. 10 no. 4 pp. 263-74.
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- Kyriakides TR et al. "pH-sensitive polymers that enhance intracellular drug delivery in vivo." *J Control Release*; 2002 Vol. 78 no. 1-3 pp. 295-303.
- Lackey CA et al. "Hemolytic Activity of pH-Responsive Polymer-Streptavidin Bioconjugates." *Bioconjugate Chem*; 1999 Vol. 10 no. 3 pp. 401.
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- Murthy N et al. "The design and synthesis of polymers for eukaryotic membrane disruption." *J Control Release* 1999 Vol. 61 pp. 137-143.
- Oku N et al. "A novel non-viral gene transfer system, polycation liposomes." *Adv Drug Deliv Rev* 2001 Vol. 21 pp. 209-218.
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- Robaczewska MS et al. "Inhibition of hepadnaviral replication by polyethylenimine-based intravenous delivery of antisense phosphodiester oligodeoxynucleotides to the liver." *Gene Ther*; 2001 Vol. 8 no. 11 pp. 874-881.
- Tonge SR et al. "Responsive hydrophobically associating polymers: a review of structure and properties." *Adv Drug Deliv Rev* 2001 Vol. 53 pp. 109-122.
- Zhang G et al. "High Levels of Foreign Gene Expression in Hepatocytes after Tail Vein Injections of Naked Plasmid DNA," *Human Gene Therapy* 1999 Vol. 10 No. 10 pp. 1735-1737
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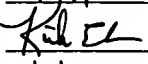
Applicant respectfully requests that these publications be expressly considered during the prosecution of this application and made of record herein and appear among the 'References Cited' on any patent to issue herefrom.

Respectfully submitted,

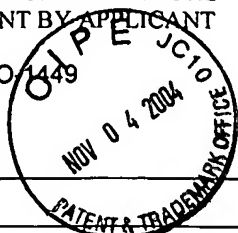

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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT FORM PTO-1449 | Attorney Docket No.: Mirus.042.03 | Serial No.: 10/772,502 |
| | Applicant: David B. Rozema, Darren Wakefield | Group: |
| | | Examiner: |



U.S. PATENT DOCUMENTS

| Exmnr Intl | Seq | Patent Number | Issue Date | Patentee | Class | Sub Class | Filing Date |
|---------------|-----|---------------|---------------|----------------------|-------|--------------|-------------|
| | | 6,383,811 | 05/07/2002 | Wolff, Jon A. et al. | | | |

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

| | | Document Number | Publication Date | Country or Patent Office | Class | Sub Class | Transl. | |
|--|--|-----------------|---------------------|-----------------------------|-------|--------------|---------|----|
| | | | | | | | yes | no |
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OTHER DOCUMENTS (Including Author, Title, Date Pertinent Pages, etc.)

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| | | Plank C. et al. "The influence of endosome-disruptive peptides on gene transfer using synthetic virus-like gene transfer systems." J Biol Chem 1994 Vol. 269 No. 17 pp. 12918-12924. |
| | | Robaczewska MS et al. "Inhibition of hepadnaviral replication by polyethylenimine-based intravenous delivery of antisense phosphodiester oligodeoxynucleotides to the liver." Gene Ther; 2001 Vol. 8 no. 11 pp. 874-881. |
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| | | Zhang X et al. "In vivo gene delivery via portal vein and bile duct to individual lobes of the rat liver using a polylysine-based nonviral DNA vector in combination with chloroquine." Hum Gene Ther, 2001 Vol. 12 no. 18 pp. 2179-90. |
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| Examiner: | Date Considered: |
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